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Logistics Education and Training Experimentation Testbed

Reference: Strategic Mobility 21 Contract N00014-06-C-0060

Dear Paul,

In accordance with the requirements of referenced contract, we are pleased to submit this SM21 Deliverable Number 0022, Transition Plan Revised Annex B – Joint Logistics Education and Training Experimentation Testbed for your review.

Your comments on this document are welcomed.

Regards,

A handwritten signature in black ink, appearing to read 'John Hwang', with a long, sweeping horizontal stroke extending to the right.

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Strategic Mobility 21 Principal Investigator

cc: Administrative Contracting Officer (Transmittal Letter only)
Director, Naval Research Lab (Hardcopy via U.S. Mail)
Defense Technical Information Center



Strategic Mobility 21

Transition Plan Revised Annex B - Joint Logistics Education and Training Experimentation Testbed

Prepared for:

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ABSTRACT

The lessons learned and relearned from the Revolutionary War forward to more recent experiences in Afghanistan, Iraq, and the responses to recent complex humanitarian disasters emphasizes just how critical distribution logistics is to operational success. In modern warfare Combatant Commanders (CCDRs) rely on Joint logisticians to be subject matter experts (SME). More importantly, Joint Logisticians must be critical thinkers with the ability to rapidly access requirements, adapt to dynamic environments, discern shortfalls, and develop sufficient solutions to support requirements within the Joint context. Despite the critical nature of logistics, it is often neglected especially in training Joint logisticians and during major Combatant Command (COCOM) exercises.

Enterprise Management Systems (EMS) has been tasked¹ with assisting in the planning and execution phase of establishing the Joint Logistics Education and Training Experimentation Testbed (JLETT) within Strategic Mobility 21 (SM21). The SM21-JLETT was established to support the training and education of commercial and military logisticians. The focus of the SM21-JLETT transition planning is the 2009, Joint Logistics Education, Training and Exercise Study (JLETES) completed by EMS for the Joint Forces Command (JFCOM) J7.

The FY 2008 Department of Defense (DOD) Appropriations Bill provided the funding to conduct the independent study (JLETES) on the effectiveness and efficiency of Joint logistics education and training in the COCOMs and Joint training exercises. The United States Joint Forces Command (USJFCOM) sponsored the study through the Joint Warfighting Center/Joint Training Directorate (JWFC/J7). The JLETES studied the effectiveness and efficiency of Joint logistics education and training in the COCOMs and Joint training exercises and provides an overall assessment of the current state of Joint logistics education and training in DOD.

Various methodologies were employed in completing the study. To begin, ten logistics education related studies were selected and analyzed. Next, the Joint logistics lessons learned from several sources were reviewed, as well as COCOMs' exercise after-action reports (AAR) and the results of USJFCOM's Multinational Experiments. An important aspect of the study was the interviews conducted with subject Matter Experts (SMEs) from USJFCOM, United States Transportation Command (USTRANSCOM), and several educational institutes. A survey was also conducted with the COCOMs to gather additional data and requirements. Concurrently, a review of logistics education and training courses was conducted and a database with over 800 entries was created. Lastly, technologies related to logistics training and education was assessed.

The JLETES study identified over 40 findings and recommendations, which were used as the basis to develop this input to the SM21-JLETT Transition Plan. As documented in this technical report, the opportunity exists for the SM21-JLETT to help eliminate or at least lessen the numerous causes that revolve around a number of specific logistics Joint training and education issues and shortfalls in exercises and Joint planning skills.

¹ Statement Of Work Revision D, Title: Strategic Mobility 21 FY06/07, Date: February 1, 2010, S07-338108EMS (02/01/2010-04/30/2010); Task 4.2 JLETT Transition Planning and Execution

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1.0 Introduction

Enterprise Management Systems (EMS) has been tasked² with assisting in the planning and execution phase of transitioning the Strategic Mobility 21 (SM21) Joint Logistics Education and Training Experimentation Testbed (JLETT) support concept into a functional support organization. The focus of the transition planning is the 2009, Joint Logistics Education, Training and Exercise Study (JLETES) completed by EMS for the Joint Forces Command (JFCOM) J7. This document identifies the joint military logistics education and training, live and constructive computer based training, and logistics experimentation program that are appropriate for the SM21 JLETT to support by developing required capabilities for use by Combatant Commands and Joint Forces.

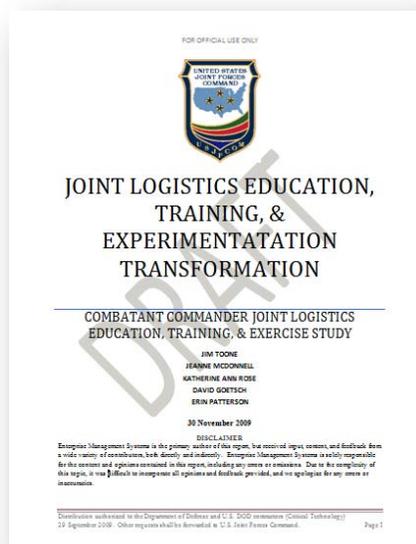


Figure 1: Joint Logistics Education, Training and Exercise Study

The JLETES study was conducted because of the experiences in Afghanistan and Iraq, as well as the Tsunami and Hurricane Katrina responses, that reemphasized the need for well prepared Joint logisticians. To rapidly assess and respond to complex humanitarian disasters then adapt to rapidly changing situations, to foresee shortfalls, and to develop solutions to support requirements within the Joint context requires well prepared Joint logisticians. Unfortunately Joint logistics billets are often filled with Service-specific trained logisticians without the required knowledge of Joint logistics planning or operations.

The FY 2008 Department of Defense (DOD) Appropriations Bill provided initial funding and established the Joint Logistics Education, Training, and Experimentation Transformation (JLETT)³ as an innovation cell within the Office of the Under Secretary of Defense for Acquisition, Technology & Logistics (OUSD (AT&L)). The Office of the Secretary of Defense (OSD) sponsor for JLETT is the Office of the Assistant Deputy Under Secretary of Defense

² Statement Of Work Revision D, Title: Strategic Mobility 21 FY06/07, Date: February 1, 2010, S07-338108EMS (02/01/2010-04/30/2010); Task 4.2 JLETT Transition Planning and Execution

³ The Joint Logistics Education, Training, and Experimentation Transformation (JLETT) program was mandated by Congress. This document supports the establishment of the Joint Logistics Education and Training Experimentation Testbed (JLETT) that will be established within Strategic Mobility 21 Incorporated (a not for profit entity).

(ADUSD) for Logistics & Materiel Readiness (L&MR). The United States Joint Forces Command (USJFCOM) sponsor is the Joint Warfighting Center/Joint Training Directorate (JWFC/J7). The Joint Logistics Education, Training, and Exercise Study (JLETES) is an independent study completed by the JLETT staff on the effectiveness and efficiency of Joint logistics education and training in the COCOMs and Joint training exercises. The study conducted by EMS provides an assessment of the current state of Joint logistics education and training in DOD and was used as the primary source for the “SM-21-JLETT” transition planning.

The JLETES resulted in 40 plus recommendations and two overarching recommendations. The first overarching JLETES recommendation resulted in Issue 09-010, which was initially presented by the Joint Logistics Education and Training (JLET) Working Group (WG) to the Worldwide Joint Training and Scheduling Conference (WJTSC) Executive Committee in August 2009. The Issue 09-010 (Figure 2) was revised and approved by the WJTSC Executive Committee in April 2010.

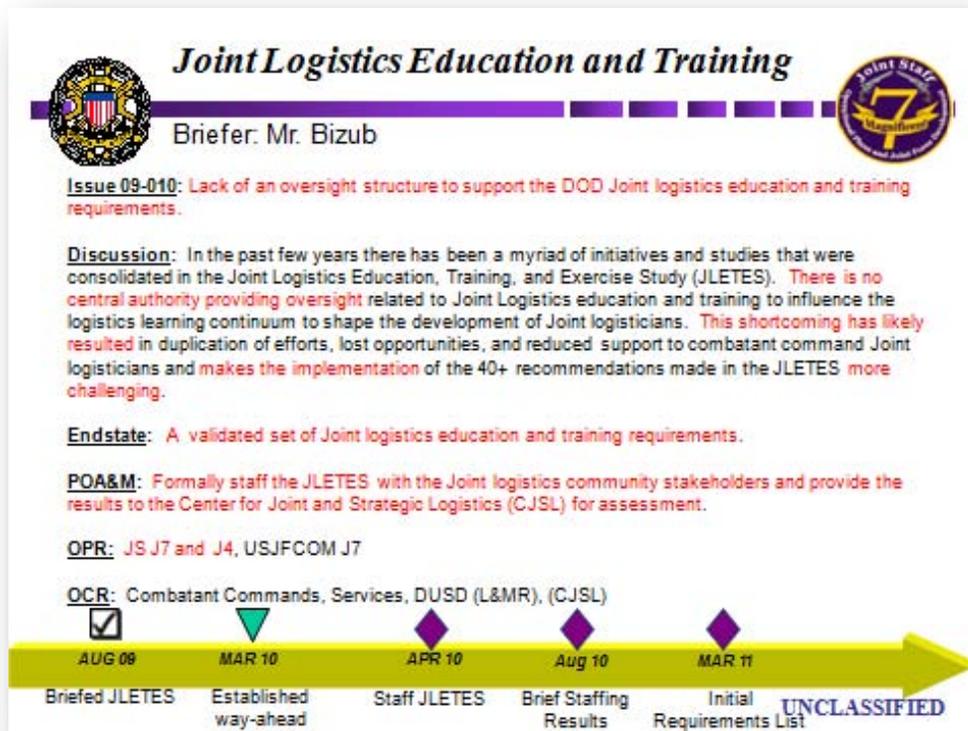


Figure 2: Worldwide Joint Training and Scheduling Conference Issue 09-010

The two overarching JLETES recommendations are outlined below:

1. Formally designate a flag/general officer-level Joint Logistics Education and Training Governance Board consisting of representatives from the Office Secretary of Defense (Personnel and Readiness (OSD (P&R))), Joint Staff, USJFCOM, USTRANSCOM, Defense Logistics Agency (DLA), ADUSD (L&MR), Center for Joint and Strategic Logistics Excellence, and geographic CCDRs to support the DOD joint logistics education and training requirements.

2. Develop a joint logistics Advanced Knowledge Management System using a semantic web-based approach supported by a logistics-oriented ontology that would provide the reach-back capability to support joint logisticians whether stateside or forward deployed.

As noted above, the first recommendation resulted in Issue 09-010 which was revised by the JLET WG at the most recent WJTSC. The purpose established for the recent JLET working group was twofold: (1) to refine and resolve Issue 09-010 as originally defined by the JLETES and (2) to recommend which organization should assume ownership of the JLET WG and any associated issues. The refined issue and end-state outlined Figure 2 were established at the latest WJTSC JLET WG session held on Wednesday, 31 March 2010 in Colorado Springs, Colorado. How the revised Issue 09-010 and the JLETES impacts the SM21-JLETT potential support to DOD is defined within the following sections of this report.

1.1 Structure of this Report

This report contains four major sections as outlined below:

- SM21-JLETT Joint Distribution Logistics Support Validation Process
- Joint logistics education and training support,
- Virtual and constructive computer based training support, and
- Deployment and distribution experimentation.

2.0 SM21-JLETT Joint Distribution Logistics Support Validation Process

The potential SM21-JLETT support identified in of this technical report is focused on joint force deployment, redeployment, retrograde, reset, and the full life cycle of sustainment distribution. The two primary objectives identified for SM21-JLETT support to DOD are:

- Support the Center for Joint and Strategic Logistics (CJSL) in providing validated Joint Logistics education and training programs across the logistics learning continuum to properly develop Joint force deployment and distribution logisticians.
- Support the United States Transportation Command (USTRANSCOM) as the Distribution Process Owner and JFCOM as the Joint Deployment Process Owner (JDPO) in ensuring the full functionality of the Joint Deployment and Distribution Enterprise (JDDE).

The process to establish “what support is needed” should follow the same general steps outlined below in Figure 3. As depicted in Figure 3, the start point would be the requirements identified in this report, which are based on the EMS supported draft JLETES.

The JLETES is currently a draft document that has been through an informal review process within DOD. However, the JLETES will be formally staffed by the JFCOM J7 for review and comments during the April to May 2010 time period. The input received will be reviewed and analyzed by the CJSL with contracted support from EMS. After analyzing the review input received, a final JLETES draft will be developed and coordinated with the Joint Staff J4 and J7 and the JFCOM J7. Once the final JLETES draft is approved it will be signed out as an official

report. The approved JLETES will then establish the end-state defined in Figure 2 (WJTSC JLET WG Issue 09-010), which will be a validated set of Joint Logistics education and training requirements.

Working with the CJSL, the SM21-JLETT will then be able to identify validated training requirements for continued development using the steps outlined in Figure 3. The process leading to a final support proposal to the CJSL is further defined in the following sections.

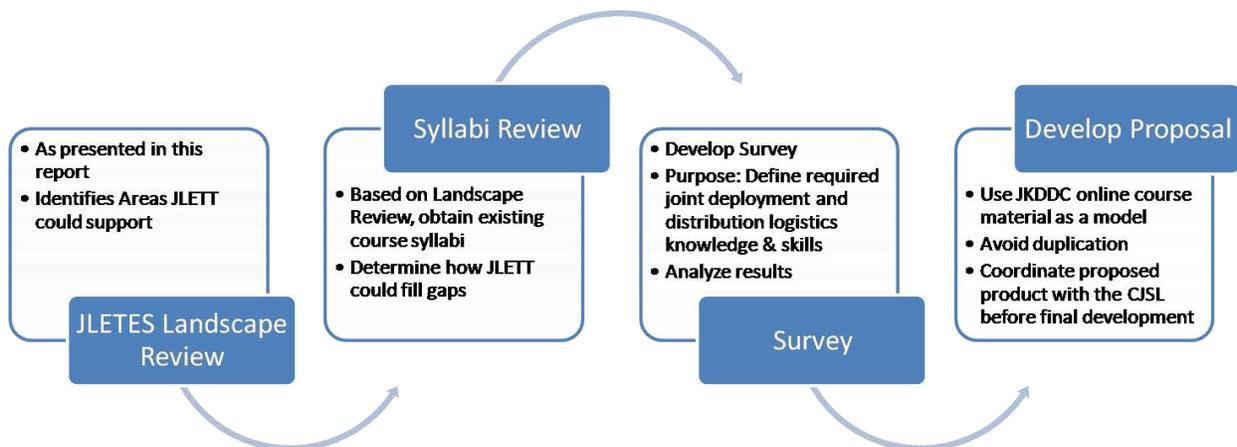


Figure 3: Joint Distribution Logistics Education and Training Capability Development Process

3.0 Potential SM21-JLETT Joint Logistics Education and Training Support

To begin the transition planning, EMS examined the JLETES Findings and Recommendations and the Appendix C Joint Logistics Education and Training Landscape analysis. The landscape analysis was reviewed to isolate the available joint logistics training and education programs related to joint force deployment, redeployment, retrograde, reset, and sustainment distribution. The review revealed that out of the 555 Joint Logistics courses in the landscape, only 187 cover the subjects SM21 could support.

Many of the applicable courses and training programs identified cover multiple subjects. Although a limited number of the offered courses covered all of the topics, some only covered redeployment and sustainment operations, while others focused on joint deployment and redeployment. Many of the courses which examined sustainment distribution activities also touched on the subjects of retrograde and reset.

The JLETES revealed that there are only a few logistics education and training courses related to the Joint Capabilities Areas of redeployment and retrograde. The study made two recommendations to address this gap:

- Explore adding redeployment planning and retrograde operations training to Service/Joint Schools and specifically to joint logistics courses.

- Establish retrograde training and operations in large scale training exercises at joint and service training centers or as part of large scale redeployment CPXs.

When established, the SM21-JLETT support program could create and provide education and training in order to fill these gaps. These courses could cover the subjects of Joint Deployment, Redeployment, Retrograde, Reset, and Sustainment Distribution. Prior to developing education and training programs for these subjects, the SM21-JLETT will submit a support plan to the to the Center for Joint and Strategic Logistics (CJSL) staff, USJFCOM J-7 or, USTRANSCOM depending on the subject, for review to validate that the SM21-JLETT development support would be appropriate.

Additional targets of opportunity for the SM21-JLETT would be Joint Deployment and Sustainment Distribution associated specifically with Irregular Warfare, Humanitarian Assistance, and Disaster Relief, which has little if any associated training or education available. The deployment and sustainment support for Irregular Warfare, Humanitarian Assistance, and Disaster Relief is very different than that of conventional military operations which are normally taught in logistics courses. The opportunity exists for the SM21-JLETT to develop logistics education and training tools that are capable of providing realistic logistic training for scenarios involving Irregular Warfare, Humanitarian Assistance, and Disaster Relief.

3.1 Joint Deployment

According to the *Department of Defense Dictionary of Military and Associated Terms*, the term “deployment” has multiple definitions. For the purpose of this annex there are two definitions that apply to deployment logistics. The simple definition for deployment is “the movement of forces within an operational area.” A more detailed definition is “the relocation of forces and material to a desired operational area. Deployment encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging, and holding areas.”⁴

Only a select number of schools and training facilities offer courses that specifically identify deployment as the subject of the course in the title. Joint Knowledge Development Distribution Capability (JKDDC) offers three courses specific to Joint Deployment and Distribution. Air Mobility Command (AMC)/the United States Air Force Expeditionary Center (USAF EC), USMC Expeditionary Warfare School, and the Army Transportation School each offer multiple deployment specific courses.

While there are few courses whose titles specify that joint force deployment is covered, a total of 96 courses have been identified from the JLETES Landscape Analysis which cover joint force deployment as part of the course curriculum or discuss logistics items related to joint force deployment. The schools providing these courses are not uniquely joint in nature. In addition to Joint and Professional Military Education (PME) schools and Military Training Facilities provide courses that teach an aspect of joint force deployment. Each branch of the military: the Army, Air Force, Navy, and Marine Corps, all provide at least one course that discusses force deployment.

⁴ United States Department of Defense Joint Staff J-7. *Joint Publication 1-02, DOD Dictionary of Military and Associated Terms*. October 2009. http://www.dtic.mil/doctrine/dod_dictionary/

The topic of joint deployment is often taught as part of other broad topic courses, or it is related to another subject, as in the case of the Transportation Management Introductory course. Also, joint level deployment information is taught in conjunction with staff and service level information. Other related courses focus on joint operations. Based on the course descriptions provided for the landscape analysis, particular themes and subjects often appear to be taught in conjunction with joint deployment. These themes and subjects include force projection, the United States Transportation Command (USTRANSCOM) roles and responsibilities, and deployment systems. Courses that teach at the strategic and operation level are more likely to offer a greater number of courses and lessons in joint deployment.

The joint deployment process owner is the United States Joint Forces Command (USJFCOM). USJFCOM's Joint Deployment Training Center (JDTC) is the "center of excellence" for all training related to joint deployment processes and operations. Of the courses offered, five were included in the JLETES educational landscape. These courses focus on JOPES (Joint Operations Planning and Execution System) training. The different JOPES courses offered by the JDTC are tailored to different duties the user is assigned. These courses include the JOPES Support Personnel course, JOPES Action Officer course, and JOPES Functional Manager course. The JDTC also offers the Joint Flow and Analysis System for Transportation (JFAST) course for transportation information, and the Adaptive Course of Action (ACOA) course for those "who write JOPES orders [and] develop COAs."

3.1.1 Strategic Support Plan for Joint Deployment

Deployment is the movement of forces and equipment throughout an operational area. Generally the deployment process has four phases. They are planning, pre-deployment, movement and Joint Reception, Staging, Onward Movement, and Integration (JRSOI). The movement stage is composed of two to four major nodes, depending on the complexity of the deployment operation. For the most complex movement, the nodes consist of a point of origin, a port of embarkation (POE), port of destination (POD), and a destination. A course focusing on the logistics aspect of the deployment process should focus on the movement aspect of the deployment process. A topic that may be useful to discuss is the importance of Time-Phased Force Deployment Data (TPFDD) and the use of Request for Forces (RFF) and deployment orders (DEPORD), and how the latter two processes can affect the flow of forces and equipment. Pre-deployment activities such as intertheater lift requirements and the lift nomination process, pre-positioned equipment planning guidance, and the identification and preparation of sustainment materials need to be covered as well.

Joint Publication (JP) 3-35 lists four deployment movement functions that should be considered. They are:

- 1) "Deploy, shift, regroup, or move joint formations within OA [Operational Area] by any means or mode"
- 2) "Maneuver joint forces to achieve a position of advantage"
- 3) Control areas of operational advantage
- 4) Evacuation operations.

When developing a course on joint deployment or distribution, the focus must be on key logistics issues in deploying the joint force. The course can be developed by reviewing the syllabi of those courses currently offered that specifically focus on joint deployment, and referencing the other logistics courses which address joint deployment. Prior to developing specific courses, SM21-JLETT should also consider developing a survey to gain input as to the knowledge and skills necessary for effectively and efficiently conducting joint deployment logistics. However, prior to developing a survey, SM 21-JLETT should complete a review of any relevant Joint Doctrine material.

If, after completing the appropriate research, SM21-JLETT decides to design joint deployment courses, it should examine the structure of those courses offered by JKDDC, as they offer the greatest number of joint deployment specific courses. The JKDDC courses may be useful as a model and they should be referenced in order to avoid unnecessary duplication. The SM21-JLETT will need to make sure that input is received from USJFCOM's JDTC, as it is the center of excellence for joint deployment training. One of the most important items to consider when creating the training and educational programs for joint deployment is the issue of duplication. Duplication is one of the problems identified in the 2009 JLETES. To help reduce the amount of duplication, the SM21-JLETT may be able to support the JKDDC in providing better awareness of existing training courses.

3.2 Redeployment

Out of the 555 logistics related courses examined in the landscape analysis, only ten (10) relate to redeployment. Of these ten, only two have redeployment as their main focus. Both of these courses are joint courses: one is offered by JKDDC, and the other is provided by Doctrine Networked Education and Training (DOCNET). Of the 8 other courses found, redeployment processes and operations are discussed as a major part of the course. These courses are offered by US Air Force, US Marine Corps, and US Army Service schools and colleges, as well as Joint Professional Military Education (JPME) institutions. Six of the 10 redeployment related courses are offered by military training schools, while two PME schools list a course covering redeployment as a central theme of the class.

While there are two courses whose main focus is redeployment, no course was identified in the landscape analysis that focused solely on redeployment processes and operations. The topic of redeployment is often taught in conjunction with the subjects of sustainment and deployment; most often it is combined with deployment. JKDDC offers a Joint Task Force (JTF) Transition and Redeployment Operations course, which appears to provide the most focused and comprehensive redeployment information. The course covers the challenges, issues, and planning of redeployment operations, and how these operations relate to the JTF campaign.

3.2.1 Strategic Support Plan for Redeployment

The Department of Defense defines redeployment as “the transfer of forces and material to support another joint forces commander’s operational requirements, or to return personnel, equipment, and material to the home and/or demobilization stations for reintegration and/or out-

processing.”⁵ Any course created by JLETT for inclusion into military education and training programs will need to use this definition as a guide. Joint Publication (JP) 3-35 further explains all of the processes and operations that fall under this term.

According to JP 3-35, the process of redeployment includes four phases: planning, pre-deployment activities, movement and Joint Reception, Staging, Onward Movement, and Integration (JRSOI). Some of these phases have more logistics related elements than others. Important logistics topics that fall under these redeployment phases include infrastructure assessment, tracking of the force and equipment, and staging area actions. Also of importance is the separation of units and supplies needed during the redeployment process. Courses should discuss coordination between support functions, such as convoy support centers, communications, MHE, and Port of Embarkation (POE) support.

The redeployment related courses located in the landscape analysis were the most easily identified by using course descriptions; however; it appears that these courses are underrepresented compared to the other subject areas in which JLETT has interest. JLETT should create multiple logistics focused redeployment education and training opportunities. Any redeployment logistics courses created by SM21-JLETT and submitted for review should include information on infrastructure assessment, tracking forces and equipment, and staging area actions. Staging area actions include:

- a) “Turning in of excess supply stock and pre-positioned equipment
- b) Reconstitution and cross leveling of supplies and equipment
- c) Identifying requirements for pallets, flatracks and containers
- d) Repacking and loading provided assets for movement.”⁶

Other subjects to consider when designing a logistics focused redeployment course include inspection activities in theater, redistribution of supplies and equipment/materials, custom inspections, in transit asset visibility, and documentation of retrograde cargo through the use of IDs and labeling. While SM21-JLETT may decide to create a separate course discussing the role of logistics in retrograde activities, this particular topic should also continue to be addressed in select redeployment logistics classes. It is also important that the role of USTRANSCOM as the Deployment Process Owner (DPO) is discussed, as well as the use of JOPES in redeployment planning.

To further determine course curriculum and format, the SM21-JLETT program may want to consider obtaining the syllabi of the courses currently offered that discuss redeployment. These curricula can help SM21-JLETT create more focused redeployment courses. These courses should look exclusively at the logistics aspect of redeployment processes and operations. As already occurs in some existing courses, redeployment and deployment operations may be discussed together. These two operations can be similar in nature and the similarities and difference in their logistics operations should be examined. It is essential that the Combatant

⁵ United States Department of Defense Joint Staff J-7. *Joint Publication 1-02, DOD Dictionary of Military and Associated Terms*. October 2009. http://www.dtic.mil/doctrine/dod_dictionary/

⁶ Joint Chiefs of Staff. *Joint Publication 3-35, Deployment and Redeployment Operations*. May 2007. http://www.dtic.mil/doctrine/new_pubs/jp3_35.pdf

Commanders and Joint Staff have input as to what needs to be taught. The SM21-JLETT should give the most weight to input gained from USFJCOM as the DPO. Joint Doctrine documents, such as Joint Publication 3-35 should also be referenced to ensure compliance with Department of Defense training and education requirements.

3.3 Retrograde, Reset, and Sustainment Distribution.

Retrograde is the movement of people, equipment, and materiel from a deployed theater to a reset program (replace, recapitalize, or repair), another theater of operations, or to replenish units or stock requirements. Reset includes any action dealing with the repair, replacement and recapitalizing of equipment. Sustainment is defined by the Department of Defense as “the provision of logistics and personnel services required to maintain and prolong operations until successful mission accomplishment.”⁷

The EMS team identified 136 out of 555 courses relating to Retrograde, Reset and Sustainment Distribution. While none of these courses specifically mentioned the terms retrograde and reset, the topics covered by these course are related to these two topics. The courses that primarily focus on sustainment and sustainment distribution total 5 in number, with one course offering three lessons focusing on sustainment. There are 11 courses that have distribution as a main subject.

Unlike the previous subjects, the courses offered on Retrograde, Reset, and Sustainment distribution generally have a logistics focus, rather than being a smaller topic in a larger overall course. However, often times these subjects are taught in conjunction with other related logistics topics. Sustainment distribution is often taught as part of a broader distribution course. Sustainment distribution is also taught during sustainment planning courses. The same is true for retrograde. In examining the landscape analysis for this topic, the team discovered that there currently is not a course dedicated to the principle of retrograde, but separate elements of this topic appear to be covered in other courses. The subject of reset is also covered in broader courses, as well as in more specified courses. There are currently two courses in the landscape analysis called Reliability and Maintenance which cover these principles. There is also a course linking sustainment activities with reset operations.

All of the Services provide courses dealing with these topics, as well as Joint Schools, specifically Defense Acquisition University (DAU). Thirty-seven of the classes are joint classes, with the balance offered by Service schools and PME schools.

3.3.1 Strategic Support Plan for Retrograde, Reset, and Sustainment Distribution.

Reset operations include repair, maintenance, and replacement of equipment. Furthermore, Reset operations also encompass “procurement, RDT&E, and Operation and Maintenance funded major repairs/overhaul and recapitalization.”⁸ The purpose of reset is to restore a unit’s equipment to combat readiness. When addressing Reset as a subject, the training or education

⁷ *Joint Publication 1-02, DOD Dictionary of Military and Associated Terms.*

⁸ Department of Defense. *Memorandum for the Under Secretaries of the Military Departments.* January 26, 2007.

course should address the reset processes of the Army and the Marine Corps. Both of these services have similar yet different Reset processes.

Retrograde courses should examine the retrograde process, which includes the movement of equipment and materiel from a deployed theater to a reset program (replace, recapitalize, or repair), another theater of operations, or to replenish units or stock requirements. The courses should also address equipment redistributed to fill both mission requirements within the Area of Responsibility (AOR) and Department of Defense requirements worldwide. A current example of retrograde operations within an AOR would be the movement of equipment and materiel from Iraq to Afghanistan. The course should identify and define the roles of the different retrograde areas, such as processing, marshalling, and in-transit areas. The SM21-JLETT may also want to create a course, or provide as part of a course, a case study of Retrograde and Reset activities from Operation Iraq Freedom and Operations Enduring Freedom. Lessons learned should be presented. The special concerns and problems that arose and were addressed relating to Retrograde and Reset should be of particular focus.

Sustainment distribution is one part of the sustainment process, which runs from procurement to disposal. Sustainment involves supporting fielded systems and includes the life cycle of needed supplies. Sustainment functions include provisioning, cataloging, inventory management warehousing, maintenance/depot, as well as reduction of the logistics footprint. Courses whose subject is sustainment distribution should begin with looking at distribution as a whole, and narrowing the topic as necessary. USTRANSCOM is the distribution process owner, and their role in sustainment distribution should be discussed

While there are more courses focused on Sustainment Distribution and those relating to Retrograde and Reset functions than courses about Joint Force Deployment and Redeployment, additional courses are necessary. As part of its mission, SM21-JLETT should create courses that are specifically related to Sustainment Distribution logistics. As there are already courses focusing on sustainment operations, SM21-JLETT should first consider courses that describe logistics functions for Retrograde and Reset operations. Again, JKDDC might be a good model on which to base course curriculum and format for these topics. A survey should be created to determine which logistics skills and information should be taught in order to prepare logisticians for these situations in a joint staff position. As the distribution process owner, considerable weight should be given to USTRANSCOM regarding which information should be included in a sustainment distribution course. Once the surveys and other course requirement reviews are completed, a suggested list of courses for development by the SM21-JLETT should be coordinated with the JFCOM J7 as the approving authority.

4.0 Virtual and Constructive Training

The JLETES identified that the Joint, Live, Virtual, Constructive (JLVC) federation is the future of joint tactical and operational level training. The benefits of providing realistic training using the JNTC and the JLVC federation for force deployment and distribution management prior to arriving in theater are both important and achievable today. The JLETE could support achieving the desired end-state associated with force deployment and sustainment distribution in a tailored use of JLVC in combatant command exercises to meet specific logistic training objectives.

An initial target area could be the home station to CONUS strategic port. This focused area would enable the SM21-JLETT to gain the experience needed to develop an “end-to-end” live, virtual, and constructive training environment. The proposal would be to update an existing EMS computer based training design based on current functional, business, and information management system structures.

5.0 Modeling and Simulation

The JLETES determined that a shortcoming of the JNTC Implementation Plan is the lack of an end-to-end approach to support logistics modeling and simulation. The current JNTC programmed enhancements to the joint logistics capabilities still leave a significant gap in supporting all services. Since the SM21 program has significant experience designing and building distribution models and simulations, the SM21-JLETT could support enhancements to the end-to-end modeling and simulation environment.

6.0 Deployment and Distribution Experimentation

One of the major components of the overall SM21-JLETT study, the Joint Deployment and Distribution Support Platform (JDDSP), focused on defining potential joint logistics experimentation. The JDDSP study recommended a series of experiments associated with improving both joint force deployment and sustainment distribution.

The SM21-JLETT could establish a series of dual-use (commercial and militarily useful) capability experiments associated with force deployment and sustainment distribution. The experimentation could test the JDDSP as a dual-use multi-modal node within the DOD Joint Deployment and Distribution Enterprise (JDDE). Experimentation could test the development of an ad hoc strategic network located in the State of Georgia involving multiple Federated (military, commercial, interagency) entities under common system architecture. The experimentation would have two objectives; first, improve joint logistics education and training associated with force deployment and sustainment distribution and; second, refinement of the functional processes associated with force deployment and sustainment distribution.

The JDDSP could also support the emerging capability of dynamic re-planning to divert unit equipment and sustainment movement to air transit in reaction to changing priorities or missions.

7.0 Conclusion

The landscape analysis revealed that the topics of Joint Deployment, Redeployment, Retrograde, Reset, and Sustainment distribution are not well represented in military education and training. Only 187 of 555 military Joint Logistics courses in the landscape analysis discuss these subjects. Many of the courses cover more than one of the topics, such as Joint Deployment and Redeployment, or Sustainment Distribution and Retrograde or Reset operations. Many of these topics appear most often in a broad course, often times in a non-logistics focused context. There are few courses offered that cover these five topics individually. As a result, the JLETES

recommended that these gaps need to be addressed. All of these subjects should be addressed from a joint logistics perspective.

When determining which courses should be developed to fill this gap, SM21 through the JLETT project, should take into account several factors. Specifically, it is important that each of these topics have courses that address each of these subject areas individually. However, since many of these topics are closely related, such as deployment and redeployment, the courses must explain the relationship between these topics. Sustainment Distribution, Retrograde, and Reset are also similar and should be discussed together. A joint logistics focus needs to prevail: with the exception of the topics of Sustainment Distribution, Retrograde, and Reset, there are few courses or training opportunities currently available addressing these issues from a joint logistics perspective.

There are other considerations as well when designing these courses. In order to provide useful courses to the DOD, the SM21-JLETT project should do the following:

- Identify potential support areas through coordination with the CJSL
- Obtain current syllabi used in the current related courses. Reviewing these syllabi will allow SM21-JLETT to determine exactly what is taught and to avoid any unnecessary duplication.
- Conduct a survey to determine the exact skills that the COCOMs, USTRANSCOM, and USJFCOM require in order for someone to adequately perform all logistics duties associated with Joint Deployment, Redeployment, Retrograde, Reset, and Sustainment Distribution.
- Determine the gaps the SM21-JLETT can fill through the development of new courses and provide the proposed course descriptions to the appropriate DOD entity, with guidance from the CJSL, for concurrence.
- Use current offered courses, such as the JKKDC courses, to use as a format and content model when developing new courses.

The approach described in this report will be modified as required based on the approved requirements list developed by the Joint Logistics Working Group. As described in Issue 09-010, which was briefed to the Worldwide Joint Training and Scheduling Conference Executive Committee on 2 April 2010, the endstate is a validated set of Joint logistics education and training requirements. The initial requirements list will be briefed in March 2011 at the WJTSC 11-1. The SM21-JLETT has the opportunity and the ability to support the evaluation of the training and education gaps, and can provide a helpful service to the DOD in creating relevant, required courses

APPENDIX A: Glossary

Acronym	Term
AAR	After Action Report
ACOA	Adaptive Course of Action
ADUSD (L&MR)	Assistant Deputy Under Secretary of Defense for Logistics and Material Readiness
AMC	Air Mobility Command
AOR	Area of Responsibility
CCDRs	Combatant Commanders
CJSL	Center for Joint and Strategic Logistics
COA	Course of Action
COCOM	Combatant Command
CONUS	Continental United States
DAU	Defense Acquisition University
DEPOD	Deployment Order
DLA	Defense Logistics Agency
DOCNET	Doctrine Network Education and Training
DOD	Department of Defense
DPO	Deployment Process Owner
EMS	Enterprise Management Systems
JDDE	Joint Deployment Distribution Enterprise
JDDSP	Joint Deployment & Distribution Support Platform
JDPO	Joint Deployment Process Owner
JDTC	Joint Deployment Training Center
JFAST	Joint Flow and Analysis System for Transportation
JFCOM	Joint Forces Command
JKDDC	Joint Knowledge Development Distribution Capability
JLETES	Joint Logistics Education and Training Exercise Study
JLETT	Joint Logistics Education and Training Transformation
JLETT	Joint Logistics Education and Training Experimentation Testbed
JLVC	Joint, Live, Virtual, Constructive
JNTC	Joint National Training Capability
JOPEs	Joint Operations Planning and Execution System
JP	Joint Publication
JPME	Joint Professional Military Education
JRSOI	Joint Reception, Staging, Onward Movement, and Integration

JTF	Joint Task Force
JWFC/J7	Joint Warfighting Center/Joint Training Directorate
MHE	Materials Handling Equipment
OA	Operational Area
OSD	Office of the Secretary of Defense
OUSD (AT&L)	Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
OSD (P&R)	Office Secretary of Defense Personnel and Readiness
POE	Port of Embarkation
POD	Port of Destination
PME	Professional Military Education
RDT&E	Research, Development, Test, and Evaluation
RFF	Request for Forces
SM21	Strategic Mobility 21
SME	Subject Matter Expert
TPFDD	Time-Phased Force Deployment Data
USAF EC	United States Air Force Expeditionary Center
USJFCOM	United States Joint Forces Command
USMC	United States Marine Corps
USTRANSCOM	United States Transportation Command
WJTSC	Worldwide Joint Training and Scheduling Conference

APPENDIX B: References

Deputy Under Secretary of Defense for Logistics and Material Readiness. *Memorandum for the Under Secretaries of the Military Departments: Resetting the Force and Depot Maintenance Capacity and Utilization*. January 26, 2007.

Joint Chiefs of Staff. *Joint Publication 3-35, Deployment and Redeployment Operations*. May 2007. http://www.dtic.mil/doctrine/new_pubs/jp3_35.pdf

Joint Logistics Education, Training, and Experimentation Transformation: Combatant Commander Logistics Education, Training and Exercise Study. Draft, November 30, 2009

Statement Of Work Revision D, Title: Strategic Mobility 21 FY06/07, Date: February 1, 2010, S07-338108EMS (02/01/2010-04/30/2010); Task 4.2 JLETT Transition Planning and Execution

United States Department of Defense Joint Staff J-7. *Joint Publication 1-02, DOD Dictionary of Military and Associated Terms*. October 2009. http://www.dtic.mil/doctrine/dod_dictionary/